Urban Private Health Sector Inventory:

A First Step in Mobilizing Private Initiative for Child Survival

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BASICS is a global child survival support project funded by the Office of Health and Nutrition of the Bureau for Global Programs, Field Support, and Research of the U.S. Agency for International Development (USAID). The Agency's Child Survival Division provides technical guidance and assists in strategy development and program implementation in child survival, including interventions aimed at child morbidity and infant and child nutrition.

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Abstract
The Basic Support for Institutionalizing Child Survival (BASICS) Project, funded by the U.S. Agency for International Development, developed the Urban Private Sector Inventory (UPSI) to identify and survey the private health sector in Lagos, Nigeria. The BASICS team interviewed representatives of community-based organizations (CBOs), private health facilities, and pharmacies/chemist shops and patent medicine vendors in 13 lower-income communities. Previously, no databases or reliable maps existed. Several innovative methods were developed to locate representatives of the sector and access needed information quickly. The findings of the UPSI have been used to develop partnerships between private health facilities and CBOs to work toward improving child health. The UPSI proved to be a cost-effective, results-oriented method of collecting the information necessary to proceed with the Project.

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List of Exhibits

Acronyms

BASICS	Basic Support for Institutionalizing Child Survival
CBO	community-based organization
CPH	Community Partners for Health
EPI	Expanded Program on Immunization
FIC	fully immunized children
GIS	geographic information system
HF	health facility
LGA	Local Government Area
MAPID	map identifier
NGO	nongovernmental organization
PMV	patent medicine vendor
PVO	private voluntary organization
REACH	Resources for Child Health Project
RSA	rapid street assessment
TBA	traditional birth attendant
UPSI	Urban Private Sector Inventory
USAID	U.S. Agency for International Development

Executive Summary

Background

Special circumstances in Nigeria have prompted the U.S. Agency for International Development (USAID) to create a strategic plan that focuses its development efforts in the private sector. These circumstances include declining public sector services following political upheaval and changes in the ruling regime; worsening economic conditions; increasing and rapid urbanization, concurrent with rising urban poverty; and U.S. government sanctions curtailing any direct support of Nigeria's military regime.

Accordingly, the Basic Support for Institutionalizing Child Survival (BASICS) Project was given a special mandate: Improve child health services and home health practices in underserved, high-risk urban communities by developing a model that strengthens the quality, outreach, and management of private nongovernmental health services, promotes community responsibility and involvement in health, and fosters increased community demand for quality services. Lagos was selected as the initial site for BASICS work because of its rapid urban growth and indication of a growing, robust private health sector (Harvey et al. 1992).

Defining the Urban Private Health Sector

To address the first challenge—defining the composition, size, and service capacity of the private sector—BASICS developed and implemented the Urban Private Sector Inventory (UPSI). The inventory was designed to capture the wider scope of the private sector and included three different survey instruments: for community-based organizations, for allopathic (modern) and traditional health practices, and for pharmacies/chemist shops and patent medicine vendors. Several methods were used to identify the private health sector: review of existing records and registries, interviews with key informants, and a rapid street assessment (RSA) in combination with visual surveys.

The UPSI was performed as a census that attempted to inventory all private health facilities or organizations in 13 targeted communities in five Local Government Areas (LGAs). The LGAs were chosen on the basis of their degree of urbanization, population size, adverse public health risk or health status, and low to middle socioeconomic status. Similar criteria were then applied to select the communities within the LGAs. Within these five LGAs, BASICS inventoried 13 communities with a total estimated population of 1.7 million.

Content of the UPSI

The UPSI questionnaires were designed to gather initial information to help BASICS assess the potential for private sector development and impact, as well as to design a feasible model project. Critical content areas discussed with the community-based organizations (CBOs) included their membership, sustainability, and previous health outreach programs. Critical content areas discussed with the health facilities included type of practitioners and range of services offered, size of client or service population, level of current management capacity, and evidence of sustainability. Immunization services were focused on partly because of BASICS's experience and mandate in this area of child health, but also because of REACH data indicating growing private sector participation in immunizations.

The UPSI package used in Lagos, which can be adapted for use elsewhere, contains questionnaires, interviewer guidelines and instructions, monitoring forms, and a companion computer software package based on Epi Info, complete with codebook and instruction guide for data entry.

Costs

The total cost for conducting the UPSI and performing the initial analyses was approximately U.S.$15,000. This figure includes consultancy fees for additional local assistance in data processing and on-site analysis, as well as supervision and field implementation. It does not include the salaries of the BASICS Nigeria team or Headquarters staff. These costs could be significantly reduced in an already-established program. Because BASICS was in an early phase of development, many tasks were contracted or hired out.

Training, Pretesting, and Field Implementation

BASICS conducted six days of training: two days of initial training, two days of pretesting , and two days of revised training after the instruments were improved following the pretest. Training included an overview of BASICS's goal; objectives of the UPSI; roles and responsibilities of the interviewing team; review and practice of the three instruments; and discussion of logistics, daily planning, quality assurance, and monitoring/supervision. Adult learning and participatory methods were utilized during the training sessions.

Pretesting was important for evaluating the interviewers' mastery of the questionnaires, examining the feasibility of the visual survey methodology and the interviewers' ability to use it, learning respondents' reactions to the inventory and willingness to participate, evaluating the lucidity and utility of the specific questions in each instrument, and determining the time required to complete each type of questionnaire. Findings from the pretest were used to refine the inventory questionnaires and to improve logistical planning, especially in terms of realistic time frame and daily interviewer schedules.

Twenty-one interviewers, two supervisors, and one principal consultant required 20 days to complete the UPSI (including training, pretesting, rapid street assessment, visual survey, and questionnaire administration). The field time to implement the questionnaires was approximately 11 working days. The interviewers worked in teams of 10 or 11; each team had 1 on-site supervisor. They averaged six to seven hours in the field per day. In addition, the teams needed one to two hours of transport time per day and at least one hour for daily review or problem solving. Interview hours, scheduled according to the working realities of the private sector, were mostly in mid- to late morning, or late afternoon. All field work was completed before dark for reasons of safety and security.

The CBO and pharmacy/chemist shop and patent medicine vendor (PMV) questionnaires each required approximately 30 minutes to complete. Generally, the health facility questionnaire took about one hour and needed multiple visits. For this reason, an abridged version was offered that only took about 30 minutes. The owner/proprietor or director of the facility or a recognized CBO leader/official responded to the survey.

Although specific UPSI content can be modified according to the local situation, BASICS found that it was best keep to keep content broader and the administration time shorter. More in-depth examination of selected topics, through a different method, could take place at a later time.

Monitoring and Data Analysis

We developed five forms to facilitate monitoring and organization of the data: daily interviewer itinerary, interviewer checklist, interviewer diary, attendance registry, and evaluation. Two data processors entered the cleaned data on a daily basis. All data were analyzed using Epi Info 6.0. Simple frequencies were calculated for all variables. Cross tabulations were then performed for selected variables. Summary aggregate tables of key findings were developed and corresponding graphic depictions made using Harvard Graphics. Data can be analyzed at three levels: aggregate (the 13 communities), specific LGA, or individual community. Every inventoried facility or organization has a map identifier (MAPID) code that allows rapid location for grouping by geographic area—the foundation for a geographic information system (GIS).

Field Challenges

A variety of field challenges were met and pragmatic remedies implemented. As detailed in the body of this paper, they included the following: lack of current maps, difficulty in locating health facilities and pharmacies, difficulty in locating CBOs, a concurrent government licensure/registration investigation, lack of records, reliable transport, safety and security of interviewers, respondents' suspicion and worry about confidentiality, and tailoring the interview schedule to the working hours of respondents. How BASICS overcame these challenges provides a number of field lessons for future application of an UPSI in urban private sector environments.

Findings

Within the 13 communities surveyed, the inventory identified 395 CBOs, 330 private health facilities, and 414 pharmacies/chemists or PMVs. Refusal rates for each category were as follows: 9 percent of CBOs, 15 percent of health facilities (HFs), and 22 percent of pharmacies/chemists shops and PMVs. The most common reason for CBO and HF refusals was time. Many of the PMVs were concerned about a concurrent Government of Nigeria licensure check and hence reluctant to share information or answer questions. Facility-to-population service ratios varied greatly between the communities. The highest health facility ratio noted was 1 HF per 1,850 service population members; the lowest was 1 HF per 19,200 service population members. CBO-to-population ratios ranged from 1:640 to 1:5,327.

CBOs

The majority of the CBOs (over 60 percent) characterized their membership in terms of religious affiliation, while less than one-quarter were described in terms of occupational groups (e.g., hairdressers or transport workers). The assumption that most CBOs were nonprofit was confirmed (85 percent). A number of variables related to sustainability were examined, including duration of existence, financial

support, governance, and membership selection. Nearly half of the organizations claimed more than 50 members, while about three-quarters had fewer than 5 paid staff. The relationship to community was also explored in terms of membership, staff selection, management decisions, the existence of a community board or governing body, and financial or material support. Approximately 40 percent reported a history of involvement in health activities. Of those, the majority (80 percent) listed immunizations. About one-third of all CBOs reported participation in some form of Expanded Program on Immunization activities during the last five years, the majority in promotion and/or campaigns.

Health Facilities

Most of the facilities classified themselves as polyclinics, small hospitals, or outpatient/primary health care clinics (67 percent). Only 14 percent were traditional medicine practices. There were relatively few nongovernmental organization or private volunteer organization clinics. Most facilities (81 percent) had been providing services in their communities for more than three years. Registration with the State Government was most common (64 percent). Staffing patterns varied widely, but the average practice contained 15 individuals, including 4 physicians, 6 nurses, 4 nurse midwives, and 1 traditional birth attendant (TBA). The practices functioned rather autonomously, with few secondary agreements or shared call schedules. The one exception was in the area of referrals, where 28 percent reported a formal referral system agreement, most commonly with a government facility. Over 90 percent of the facilities depended on fee for services as their financial base. About half used a fixed fee for services. Very few of the facilities had written personnel or administrative policies and procedures. Management capacity and infrastructure were minimally developed. Most respondents could only estimate patient load or catchment populations. Most practices provided a mix of outpatient services, including primary health care for all ages, maternal/child health, prenatal/perinatal care, and family planning. Home visits were not uncommon (28 percent), but outreach services were rare (<5 percent). Over 65 percent were providing some type of immunization services, though not necessarily all antigens. Immunizations were not routinely available every day. Only 62 percent purported to follow the recommended immunization schedule (age and antigen). Over three-quarters obtained vaccine from their local pharmacy. Finally, most charged a fee for immunizations, most commonly reported as about 50 Naira (U.S. $0.60).

Pharmacies/Chemist Shops and PMVs

The number of drug sellers in communities varied greatly: 22 percent of those interviewed came from just one community. Roughly the same number of pharmacies/chemist shops were interviewed as PMVs, although the refusal rate was higher for PMVs. Over 99 percent operated for profit. Despite the ongoing controversy about registration and licensure, over one-third (40 percent) reported current registration with their LGA. Less than one-fifth of those interviewed stocked vaccines; of those that sold vaccines, local drug representatives were the most common source (61 percent). Few of the pharmacies or PMVs maintained client record systems. Almost half reported fixed fees (48 percent).

Utility of UPSI Information: Program Design and Monitoring

The UPSI information proved invaluable in terms of program and project design. Specifically, it was used as an integral part of the Lagos Community Partners for Health to select target communities, identify potential private sector partners, develop prototype private sector partnership structures, create partner profiles, establish an operational framework for community partnerships, and initiate strategic intervention planning (Silimperi et al. 1998). Longer-term uses of the UPSI database include program monitoring and the generation of data for local decision making and capacity building.

Conclusion

The UPSI can play a pivotal role in identifying the composition, size, location, and general functional capacity of the urban private health sector. This information is vital for the selection of private sector partners, target communities, and the development of operational frameworks for program implementation. It can also be useful for ongoing program monitoring, public sector policy development and municipal health system planning.

BASICS Project in Nigeria

Introduction

BASICS (Basic Support for Institutionalizing Child Survival) is a five-year international public health project funded by the U.S. Agency for International Development (USAID). BASICS provides technical leadership and practical field programs to reduce infant and child illness and death worldwide. BASICS technical support focuses on three interventions: sustaining immunization programs, integrating case management of childhood illness, and strengthening the link between nutrition and child health programs. To maximize the impact of these efforts, BASICS works to forge partnerships between governments and the private sector and to ensure that child health programs follow the principles of behavior change. BASICS develops strategies to increase the participation of nongovernmental organizations (NGOs), private for-profit providers, and the commercial sector in public health activities to improve access to care- and health-related products, use and quality of services, and sustainability to all populations, particularly the underserved.

In 1994, USAID/Lagos requested that BASICS initiate the Urban Private Sector Integrated Health Project to improve child health services by developing a model that strengthens the quality, outreach, and management of private nongovernmental health services and that promotes community responsibility and involvement in health. The Project is scheduled to run from mid-1994 through 1998. BASICS has faced special challenges in focusing its resources on mobilizing the private health sector in Nigeria. U.S. government sanctions prohibit agreements between the U.S. and Nigerian governments at any administrative level. In addition, public services and related infrastructure are in decline. Nonetheless, the Project has developed two tools that are helping fulfill the mandate of improving child health—the Urban Private Sector Inventory (UPSI), which this paper describes, and the Lagos Community Partners for Health (CPH), innovative partnerships formed, in part, on the basis of findings from the UPSI.

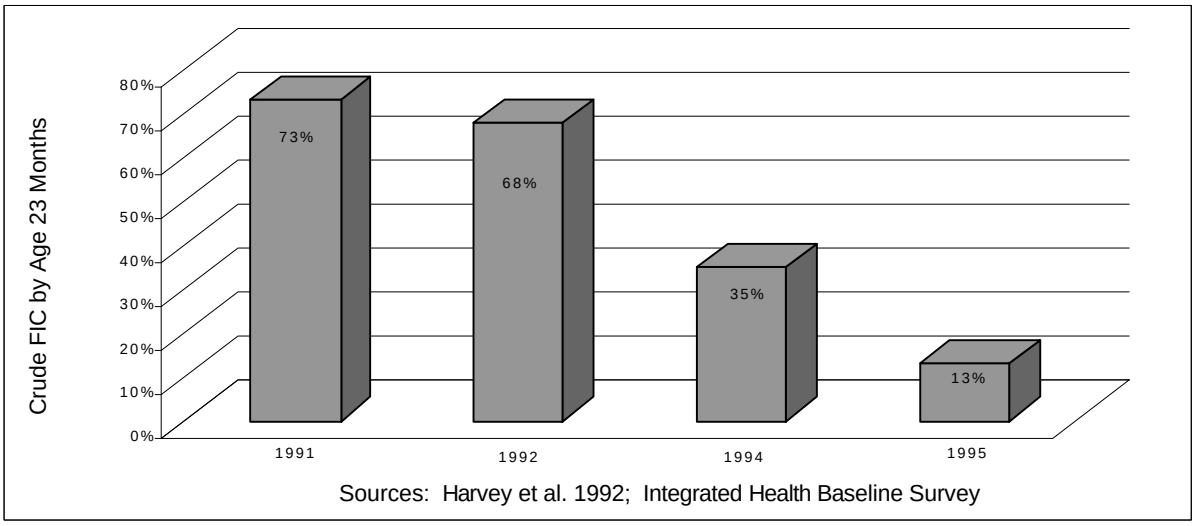
Background

In June 1993, the Nigerian military annulled civilian elections. The military then appointed an interim civilian caretaker administration, which a second military regime overthrew in November 1993. The U.S. government promptly imposed sanctions curtailing any agreements with the military regime. On April 1, 1994, President Clinton signed a Presidential Determination decertifying Nigeria for U.S. assistance because of its noncompliance with drug trafficking and interdiction control efforts. Although USAID child survival activities qualify for an exemption from the decertification, family planning services require a waiver and Congressional notification. The terms of the waiver, along with the prohibition on agreements with the GON, prompted USAID/Lagos to introduce a new strategic plan that concentrated its development efforts in the private sector.

The revised strategy is based on extensive situational analyses that revealed that the public health sector is increasingly dysfunctional, with little chance for improvement given the political and financial turmoil surrounding the current regime. Since the military takeover, the country's economic status has worsened: inflation has increased, revenues have decreased, and deficit spending has accelerated. Health and social sector programs are severely restricted, with their remaining capital barely covering salaries and emoluments. Failing public sector service is perhaps most evident in the decline of the nation's Expanded Program on Immunization (EPI). Vaccines are commonly out of stock, facilities are reportedly looted and

cold chain equipment removed, and gasoline shortages limit public transportation to facilities and distribution of supplies. Not surprisingly, the national coverage rate of fully immunized children (FIC) by age 23 months, estimated to be nearly 75 percent in 1991 (Steinglass and Olivola 1991), dropped to approximately 30 to 40 percent in 1994 (USAID 1994) and down to 13 percent in 1995. Exhibit 1 depicts the drastic decline in immunization coverage within Lagos State.

Exhibit 1
Declining Immunization Coverage Reflects Deterioration of Public Health Services



Conversely, USAID's analyses depicted the Nigerian private sector, particularly the nonprofit portion, as robust, flexible, and apparently cost-effective, which merited closer examination and support. USAID-commissioned studies indicated that the private sector was expanding—in part because some highly skilled Government of Nigeria medical professionals were abandoning their public-sector posts for private-sector opportunities—and appeared eager to fill the void created by declining public sector services. Although exact figures were difficult to obtain, various sources estimated that private sector practitioners already provided at least one-third of the health services in Lagos by 1992. REACH-supported immunization coverage surveys revealed that in 1992 private facilities in the nine largest and most urban Local Government Areas (LGAs) provided 18 to 35 percent of immunizations (Harvey et al. 1992).

BASICS Urban Private Sector Integrated Health Project

The USAID/Lagos private sector strategy recognizes that the public sector alone cannot provide comprehensive health services for the entire population, which makes strengthening the capability and sustainability of the private health sector a vital concern for public well-being. An urban growth rate estimated at 7 percent annually (Steinglass and Olivola 1991), coupled with the urban location of a large proportion of private health services, prompted USAID to concentrate BASICS's work in the predominantly urban state of Lagos.

Exhibit 2
BASICS Private Sector Integrated Health Project Mandate

To improve child health services and home health practices in underserved, high-risk urban communities, by strengthening the quality, outreach, and management of private nongovernmental health services; promoting community responsibility and involvement in health; and fostering increased community demand for quality services.

However, although it made sense for the Project to be based in Lagos, identification of the area's "private health sector" was problematic: no up-to-date directory of private providers existed, and no single database listed the various types and locations of private health facilities. Factual information was scarce, although perceptions were plentiful. For example, many people in Nigeria believed that most nonprofit health organizations were located in rural communities and states, perhaps with headquarters in urban sites, but no solid data substantiated this perception. It was assumed that private for-profit providers catered to the wealthier citizens and had few clients in less advantaged parts of town, but few service utilization studies documented patterns. The importance of urban traditional healer services was not known, yet they were assumed to make up a large component of the private health sector. Thus, the identification of the types of practitioners composing the private health sector in Lagos, the range of their services, the size of their practices, and the identity of their clients was an essential step prior to the development of BASICS's intervention plan.

The term "private sector" encompasses many entities, and its definition depends on one's reference source. In Lagos, it includes both for-profit and nonprofit organizations or facilities; likewise, both allopathic (modern) and traditional healers can be counted as private practitioners. In addition, both formal and informal private health sectors operate. The formal health sector includes a range of professionals providing services in established clinics, usually receiving cash for care rendered. The informal health sector includes traditional or unregistered providers who may operate from their homes or travel to clients' households and who are more likely to receive in-kind payment determined by the client. Such a wide range and variation of services complicated the task of clearly defining private-sector constituents in a city such as Lagos.

Furthermore, because BASICS's goal includes improving health-related behaviors in the home, the identification and location of community-based organizations (CBOs) that could play a role in mobilizing, sensitizing, and educating community members about health promotion and care of the sick child was also important. But again, no database existed with CBOs' names, locations, and key background information.

The UPSI proved to be a cost-effective, results-oriented method of collecting the information necessary to proceed with the Project.

Development of the UPSI

Purpose and Scope

BASICS developed the UPSI in order to better define the composition, size, and basic service capacity (specifically in the area of immunizations) of the Lagos urban private health sector. BASICS used the inventory instrument to undertake a census of every private health facility (HF) and CBO in 13 target communities. The inventory used the broadest definition of the private sector, including for-profit and nonprofit health facilities, allopathic and traditional providers, and even pharmacies/chemist shops and patent medicine vendors (PMVs). It also attempted to identify, classify, and quantify the range of CBOs that could be mobilized for health promotion. In addition, the UPSI was designed to collect data to better define the interface between public and private sector health services, thereby contributing to later policy development or strategic program recommendations.

Exhibit 3
Purpose of UPSI

Define the composition, size, and basic service capacity of the urban private health sector

Findings from the inventory were fed into the program design for the Community Partners for Health (CPH), which has set up partnerships between health facilities and CBOs. For example, the findings helped us select target communities to ensure a minimum number of eligible private sector providers, develop realistic criteria for partner selection, identify potential private sector partners, and monitor changes in private sector capacity. As the system developed, additional uses of the UPSI became evident; these will be discussed in later sections of this report. For example, a major objective of the UPSI was to build local capacity to conduct subsequent assessments and to use the findings for local decision making and program planning.

Instrument and Associated Materials

The UPSI is composed of three types of survey questionnaires that collect information from—

- Community-based organizations (social, religious, occupational, and others)
- Health facilities (both nonprofit and for-profit, allopathic and traditional practices)
- Pharmacies/chemist shops and patent medicine vendors.

Exhibit 4
Urban Private Sector Inventory: Three Survey Instruments

- Community-based organizations
- Health facilities
- Pharmacies/chemist shops and patent medicine vendors

The questionnaires covered the following information:

- CBOs: identification (name, address/location, head of organization); general information (years of duration, type of organization, membership, staffing, profit status, general finances); health program experiences
- Health facilities: identification; general information (similar to that for CBOs but also including registration status); facility (ownership, type of practice, structure, electricity); staffing; services and referrals; client profiles; immunization services (schedules, vaccine source, cold chain, outreach, EPI staff training, reporting, fees); miscellaneous (financial system)
- Pharmacies/chemist shops and PMVs: identification; general information (similar to that for health facilities); facility; staffing; client profiles; immunization services

The designated respondent of the questionnaire was the owner, proprietor, or director of the facility (or his/her designee) or a recognized CBO leader or official. The survey questionnaires were designed to gather basic information to assess the potential for private sector development and impact. We focused on immunization services, because of BASICS's experience and mandate in this area of child health and because of REACH data indicating growing private sector participation in the provision of immunizations.

When used in other contexts, specific UPSI content can reflect the local situation. However, in keeping with the purpose of an UPSI as an initial information-gathering exercise, we kept the content broad and somewhat superficial, and the time to complete the questionnaire short. The Lagos UPSI did not attempt in-depth or detailed analysis, although it did identify areas or topics in which more in-depth examination would be useful. Thus, for example, it included only a few questions regarding quality of services, under the assumption that more detailed work in this area could follow during program development and implementation.

The CBO and pharmaceutical seller surveys each took about 30 minutes to administer, and the health facility survey required up to one hour. Commonly, interviewers conducted the health facility survey in two or three sessions, with follow-up interviews scheduled at the convenience of the practitioner. The instrument was printed in English, and translated into Yoruba and Pidgin as needed by the interviewer. The annexes contain the three survey questionnaires: CBO survey (Annex A) health facility survey (Annex B), and pharmacy/chemist shop and PMV survey (Annex C).

Each individual questionnaire includes a unique identification code, as well as a geographic map identifier (MAPID), which points out the general location of the facility or organization. The identifier code uses the Lagos Transit and Street Map as its foundation. Thus, an initial step in the development of an eventual geographic information system (GIS) was incorporated into the UPSI.

All three questionnaires have their own interviewers' manual entitled *Guidelines for Research Assistants*, and a General Instructions Guide accompanies the complete inventory. Additional materials developed include training materials for survey interviewers, daily monitoring forms, daily diary forms, and supervisory monitoring forms.

The UPSI has a companion computer software package based on Epi Info, complete with codebook and instruction guide for data entry. The statistical analysis and summary tables will eventually be included in the software, but they currently exist as separate files. Identification and geographic codes were

designed to promote easy linkages with future surveys (household and facility based), as well as with program activities.

Selection of Target Communities for the Inventory

BASICS performed the inventory in five Local Government Areas (LGAs) chosen on the basis of their high degree of urbanization and adverse public health risk or status: Ojo, Shmolou, Mushin, Lagos Island, and Lagos Mainland. Within the five LGAs, 13 communities with an estimated total population of 1.7 million were inventoried. We selected these communities according to high population, poor public health status, and low- to middle-income status (with a bias toward low).

Staffing and Costs

The BASICS team consisted of 21 interviewers, 2 field supervisors, and the principal consultant. All of the interviewers had at least an undergraduate degree, and several had pursued master level studies. A few had medical backgrounds.

The cost of conducting the inventory and performing initial analyses was approximately U.S.$15,000. This amount included consultancy fees for local assistance in data processing and on-site analysis, supervision, and field implementation; local interviewer salaries and transport fees; car rental fees; photocopying and photography costs; stationery and other supply purchases; and communications and faxes with BASICS Headquarters' technical support staff. It did not include the salaries of the BASICS/Nigeria team or Headquarters support. The cost of an UPSI could be reduced if a program had been already established with full staff, computer equipment, project transport, and other resources. Because BASICS was in its early development phase in Nigeria, we had to contract out many of these services.

Methodology

As noted, no complete registry of private health providers or community organizations existed in Lagos. Therefore, BASICS/Nigeria used three methods to identify private sector participants for the inventory: review of existing records and professional organization registries; interviews with key informants in the communities, including community leaders and health facility workers; and visual surveys and rapid street assessments (RSAs). Review of existing records, while perhaps useful in some settings, was not productive in these urban communities. For the most part, preexisting registries or records were rare and difficult to access. Accordingly, key informant interviews and the visual survey became the primary methods to identify private sector participants.

Exhibit 5
Methodology for Identifying the Private Sector for UPSI

- Review of existing records
- Interviews with key informants
- Rapid street assessment and visual survey

Key informants included Community Development Officers, local ward leaders, traditional and religious leaders, representatives from professional organizations, and health providers themselves. Often, CBO representatives or health facility staff members were valuable sources of information regarding other community-based facilities or organizations.

The lack of accurate, detailed maps of the designated target communities, a prerequisite for planning the streetwise distribution of the survey, was an early problem. Streets in the less affluent areas of Lagos where the inventory took place often had missing or multiple names or inconsistent numbering. Frequently streets on the outskirts of town were undergoing radical changes with new development, whereas in the inner city, some streets were "reverting" to nonresidential areas, which would affect the number and types of facilities in operation. An RSA was the only way to determine the actual number and names of streets in the targeted communities, much less the location of all private providers or organizations purported to operate there. Interviewers walked the streets, making corrections on local maps. The best available map proved to be a compilation of common road and transport maps (Lagos Transit and Street Maps) produced by the West African Book Publishers. These maps formed the starting point for the RSA; each interviewer worked with photocopies of the pertinent sections.

To obtain accurate geographic information and pre-listing of local facilities and organizations, the interviewers, using the Lagos Transit and Street Maps, first surveyed the borders of each of the designated communities. They discovered that some communities had extended their borders, merging or expanding into previously less-developed areas; others had decreased in size. They marked changes on their copies of the street maps. Later the full team compared findings about each community.

The team verified its preliminary listing of all the streets within the target communities by making an intense day-long RSA. This involved touring each street to confirm its existence, name it, and estimate its population density (high, medium, low). The team classified four of the selected communities as high density, one as medium density, and eight as low density. In addition, new streets were discovered and added to the maps and street listings. Most importantly, an expanded list of private sector facilities and organizations per street was developed.

By far the most productive method—but also the most time-consuming—was the visual survey to identify additional providers. The BASICS team literally walked the length and breadth of each street in the communities, observing and recording changes in street configurations and names and identifying the location of additional facilities and organizations by their signboards and street advertisements. The visual survey was especially useful for finding traditional healers and PMVs. Interviewers performed a preliminary visual survey in conjunction with the rapid street assessment and then repeated the visual survey in more depth when administering the inventory questionnaires.

During the implementation of the UPSI, each interviewer continued to visually survey a specified number of streets per day. Assignments varied with the density of the area to be inventoried. The interviewers described the location of any new streets (or physical or name changes in known ones) in their notebooks and immediately transcribed the information onto their maps. They also identified additional facilities and organizations, added the names to their listings, and scheduled interviews with them. Thus, the visual survey was performed before and concurrently with the conducting of inventory interviews.

Both the RSA and the visual survey were difficult, for the high-risk communities in which the inventory was conducted commonly had the least consistent numbering of structures and names of streets in Lagos, as well as the densest populations in the city.

Training

All UPSI interviewers and supervisors participated in a six-day training program: two days of initial training, two days of pretesting the method and instruments, and two days of follow-up training after the instruments were revised on the basis of the results of the pretest. The initial training included an explanation of the goal of BASICS/Nigeria, objectives of the UPSI, review of the inventory instrument (overview and question-by-question) in conjunction with the interviewer guidelines, and discussion of logistics, daily planning, quality assurance, and monitoring and supervision. The training was based on participatory learning methods, with individual practice sessions held for each of the three questionnaires before the pretesting in the field. The training also included a mapping session and special instructions regarding the visual survey and RSA methods.

The training stressed the importance of accuracy and the need to maintain daily diaries to record specific problems and challenging field situations, particularly in light of the newly introduced methods and the anticipated complications inherent to an urban environment. Because many of the urban sites and conditions were unfamiliar to the interviewers, the training program included a "street wise" orientation to prepare them for inner-city interviewing realities. Problem-solving exercises were conducted and discussions held emphasizing preparedness and safety. They learned the importance of using the standard introductory statement (Annex D), in which the interviewers warmly greeted their clients, introduced themselves, and explained the purpose of the interview. Considering the innovative methods introduced in this inventory, the novel private sector respondent audience, and the challenges of conducting the exercise in an inner-city environment, proper preparation of the interviewers and supervisors was clearly critical to the success of the endeavor.

Pretesting

Pretesting (the field test) evaluated the interviewers' mastery of the questionnaires. It also examined the feasibility of the visual survey methodology and the interviewers' ability to use it, gauged respondents' reactions to the inventory and willingness to participate in it, evaluated the lucidity and utility of specific questions, and, of course, determined the time required to administer the three types of questionnaires. The pretest took two days, during which interviewers completed 56 interviews and rescheduled or partially completed an additional 3. Each interviewer conducted at least two interviews.

The most important findings from the pretest are outlined in Exhibit 6. These findings were used to rewrite questions and clarify associated instructions. In addition, an abridged version (requiring about 30 minutes) of the health facility questionnaire was created, for those instances when a health provider refused or was unable to grant more than a single short interview. The introductory statement was revised to address common concerns heard during the pretest; it made clear that the interviewer did not represent the government, the interviewer was not a tax collector, and the inventory did not in any way relate to a concurrent government-licensing review. In addition, it was decided that health facilities run by CBOs would respond to the health facility questionnaire, but the interviewer would also document the umbrella CBO under which the facility operated.

Field Implementation

The training, pretesting, RSA, visual survey, and questionnaire administration took 20 days. After training and pretesting, the team spent approximately 11 days in the field, for a total of 182 person days (1,456 working hours).

We divided the 13 communities into 50 "workable" subareas, using major roads and local government boundaries to determine an approximately equal number of main streets per subarea. Initially, available maps identified 1,029 streets; about 50 "new streets," which did not appear on any of the reference maps, were then identified by the field teams during the RSA. By the completion of the inventory, we had identified a total of 1,272 streets. Thus, the RSA and visual survey methods added a total of 193 streets not depicted on any published Lagos map.

On the basis of the initial tally of streets, each interviewer had four to five streets to cover per day. As shown in Exhibit 7, the streets were often difficult to access. Distance, congestion, the number of private sector facilities or organizations, and other factors meant that the actual number of streets covered per day varied; nonetheless, a range of three to four minimally and six to eight maximally was the norm. At the end of each day, all questionnaires were reviewed, and the daily and aggregate summaries were calculated by the inventory principal consultant. This was not a simple process, for the interviewers needed to return several times (often three or more) to complete an interview, particularly for the health facilities. The two field supervisors were thus responsible for monitoring daily contacts, interviews in process, rescheduled sessions, refusals, and successfully completed interviews per type of questionnaire, as well as street and stratum completion status. A daily tracking form, as shown in Annex E, assisted the supervisors in monitoring progress.

Exhibit 6
Findings from the Pretest

Time
- An average of 30 minutes was needed to complete the pharmacy and CBO questionnaires, and 45-60 minutes for the health facility questionnaire.
- The health facility questionnaire was too long for some providers.

Identification
- The visual survey and local informant methods were successful in locating CBOs and health facilities, as addresses had frequently changed since the time of registries or other documentation.
- Visual survey was most useful for identifying allopathic and traditional health facilities, as well as pharmacies/chemist shops and PMVs.
- Identification of CBOs depended more upon local key informants, because CBOs were less likely to have signposts detectable by visual survey.

Participation
- The private health providers often needed "convincing" before they would participate.
- In many cases, permission from the health facility medical director or proprietor was needed prior to interviewing other employees; this meant that the first visit was usually limited to rescheduling another convenient time to interview the director.
- A high refusal rate could be anticipated from the PMVs and some pharmacists/chemists because of a concurrent government-sponsored effort to determine registration or licensure status.

Instrument Clarity
- Individual questions needing refinement or clarification were identified.
- Classification question was settled regarding determination of survey questionnaire selection: CBOs with health provider services (such as church clinics) were to be considered as health facilities and administered the related questionnaire, but their link with a "parent" organization would be noted on the form.

The interviewers worked in two teams of 10 or 11 members each, together covering two sites per day. The two on-site field supervisors reviewed each inventory form to ensure completeness and legibility,

made daily assignments, monitored the inventory workplan schedule and overall progress, maintained field supplies (questionnaires), organized completed questionnaires, solved problems, conducted daily reviews with all interviewers, and produced weekly reports with the principal inventory consultant.

The teams started at 9:00 a.m. and completed their field work by 4:00 p.m., averaging six to seven hours in the field and one hour in the office each day. Transport time in Lagos is often considerable; notorious traffic jams known as "go slows" paralyze roads for hours. Between one and two hours per day were required for transport to and from survey locations. The teams used the office hour to review the day's progress and problems, replenish supplies, and prepare assignments for the next day. The realities of the private sector working day dictated the scheduling of interviews. Interviewers used mid- to late morning and late afternoon for their initial visits to the facilities and CBOs, and, in a few cases, conducted early evening follow-up sessions with the facility proprietors or directors. Because of concerns regarding the security and safety of the interview teams, all field operations were completed by dark, and female interviewers were encouraged to work in pairs.

Exhibit 7
UPSI Interviewers Usually Surveyed Four or Five Streets Daily

Generally, the health facility information was the most difficult to obtain. The questionnaire required an initial visit to establish the identity and availability of the individual in charge and to collect data for the general information section. The interviewers needed one or two more sessions with the director or proprietor to complete the questionnaire; commonly, other clinical staff or administrators did not know the answers or were not at liberty to divulge information to the interviewers.

Supervision and Quality Assurance

The principal consultant had overall responsibility for the quality and general operations of the inventory, including training and logistics. The two field supervisors reported directly to him. Daily monitoring forms tracked completion of assignments, overall progress, and quality assurance. At the start of the effort, supervisors observed at least one session by each interviewer (when possible, for each of the three questionnaire types) to ensure the quality of interviewing. They noted mistakes or improper techniques immediately following the observation and made repeat observations as needed.

The supervisors held daily team review sessions to discuss problems and provide feedback for improvement. Interviewers were also instructed to keep daily written diaries to note field issues, questions, challenges encountered, and their responses. The diaries not only provided valuable qualitative information for others attempting an UPSI, but they also supplied concrete information for the daily review sessions. An internal evaluation of the complete inventory exercise was also held and recommendations and field lessons recorded.

Data Management and Statistical Analysis

Five forms facilitated the monitoring and organization of the data collected: interviewer daily itinerary, interviewer daily checklist, interviewer diary report, daily attendance registry, and daily evaluation (Exhibit 8). The supervisors used these forms to ensure consistent, high-quality performance according to the time plan. They also checked every questionnaire to guarantee completeness and legibility, and then submitted the forms in an organized packet by questionnaire type and by community to the data processors. The supervisors tried to review all questionnaires the day received, in order to send interviewers back for corrections before the team moved to a new site. Two data processors entered the cleaned data into the UPSI database each day.

BASICS staff analyzed the data using Epi Info 6.0. Simple frequencies/percentiles were calculated for all variables. Cross tabulations with chi square determinations of significance were then performed for selected variables. Summary aggregate tables of key findings were developed and corresponding graphics made using Harvard Graphics software. Schematic mapping of the health facilities, CBOs, and pharmacies was also performed. In the future, BASICS will incorporate the core statistical calculations, summary tables, and graphics into the UPSI software program.

Exhibit 8
UPSI Daily Monitoring Forms

- Interviewer itinerary
- Interviewer checklist
- Interviewer diary
- Attendance registry
- Evaluation

Field Challenges and Pragmatic Remedies

Finding Current Urban Maps

Cities are dynamic—their constant flux requires current maps. Up-to-date maps of Lagos were not available; it was also difficult to obtain maps of the entire city, rather than of discrete sublocales.

Remedy:

We used local, readily available road and transit maps and photocopied pages for supervisors and interviewers to correct in the field. Interviewers mapped daily updates, which were added directly onto a master map maintained by the supervisors. Written location descriptions in interviewers' diaries further detailed all changes.

Locating Health Facilities and Pharmacies

Many addresses obtained from registries were obsolete, because facilities had moved to new sites, buildings were demolished, or other reasons.

Remedy:

We began with a preliminary list based on registries, then supplemented it with local informant interviews and the visual survey. The visual survey proved to be the most rapid and effective way to locate facility providers. Traditional healers had especially eye-catching signboards (as shown in Exhibit 9). Interviewers quickly recognized clustering patterns: most facilities were located on main streets, on side streets directly off main thoroughfares, or near bus stops or taxi stands.

Locating CBOs

Many CBOs did not have signboards or advertisements; frequently, the smaller ones did not have a defined headquarters site but operated from members' residences. Smaller ones were not registered, and thus not easily identified through government or local registries.

Exhibit 9
Eye-Catching Signboards for Traditional Healers Facilitated the Visual Survey

Remedy:

Community Development Officers played an important role in initial identification of larger or registered CBOs. The representatives of these CBOs and other local leaders became significant key informants regarding the existence and location of smaller CBOs. The method did not identify all CBOs, but it did successfully identify the larger or better-known ones.

Identifying Health Facility Primary Respondents

In most of the health facilities, only the proprietor or medical director had the authority to grant an interview. Other respondents were only useful once the director had given permission. The range of education of nonphysician staff varied, and many did not have the knowledge to answer many of the inventory questions accurately.

Remedy:

Interviewers visited the facility and determined the hours during which the proprietor/director was most likely to be present. They returned at that time to initiate an interview or determine a more convenient time to reschedule the appointment.

Dealing with Concurrent Governmental Licensure Investigation

During the pretest, it became evident that many of the pharmacists, chemists, and patent medicine vendors were suspicious about the purpose of the inventory, particularly because the Government of Nigeria was concurrently enforcing registration and examining the licensure of pharmaceutical sellers. Despite clear explanations by our interviewers, we received a high rate of refusals, even among the more professional pharmacies.

Remedy:

We developed a concise standard introductory statement for interviewers to use to overcome fear and distrust. We recognized and accepted the fact that a high refusal rate among this group would be unavoidable. However, interviewers at least completed core vital information such as address, general location, and type of facility. This information could then be used at a later date to obtain more detailed information. The pretest played an important role in identifying this problem area, allowing the team to prepare and implement reasonable solutions during the actual inventory.

Surmounting Time Constraints

Although most respondents reacted favorably to the UPSI, time constraints were an issue. As noted, the health facility survey took up to one hour to complete, which was seldom feasible in the busy schedules of most practitioners.

Remedies:

First, we created an abridged form for practitioners who could only sit for a single short session and were not amenable to a second session to complete the inventory. The abridged format required only about 30 minutes. Second, after meeting the medical director or proprietor and obtaining his or her consent to participate, the interviewer often immediately rescheduled the session for a time convenient to the provider to complete the full-length questionnaire. Finally, once the director had agreed to participate, the interviewer helped him or her identify others in the facility who could answer particular sections of the questionnaire, thereby lessening the director's time commitment.

Overcoming a Lack of Records

In many instances, facilities and organizations did not have written records with the information requested. Commonly, such "data" resided in the memory of the institutional director or representative. Other staff members, though willing, were frequently unable to provide much assistance with the inventory. In general, facilities had little knowledge about catchment size of service population or records and statistics of the clients served.

Remedy:

We collected as much information as possible from verbal responses, carefully noting the source and whether or not the response was validated by visual inspection. The fact that much information does not exist in written, organized form was itself important to document and is certainly of interest in planning interventions to improve facility or organizational management and sustainability.

Traveling to Inventory Sites

Intermittent, unpredictable but incapacitating fuel shortages made transport to and from inventory sites time-consuming and complex. Fuel shortages paralyzed both public and private transport. Traffic jams could tie up major thoroughfares for much of the working day. The city is quite spread out, and often lacks direct road connections between communities, thereby necessitating circuitous routing. Roads are poorly maintained and often flood after rain, as shown in Exhibit 10.

Remedies:

We used Project vehicles to transport interviewers to common starting points for daily inventories. Advance planning and geographic focusing of daily schedules allowed common transport to be used for most interview team members. We made a realistic appraisal of transport time during the pretest. Most importantly, we scheduled enough time for transport to and from inventory sites, about two hours per day.

Exhibit 10
Community Conditions Included Poorly Maintained Roads and Flooding after Rain

Ensuring the Safety and Security of Interviewers

Interviews took place in communities known to have high personal security risk. Most of the team involved in the inventory did not live in the communities they interviewed, and in many cases, they had no previous knowledge or experience in these areas. Often, highly trained, seasoned interviewers lack experience in urban disadvantaged communities. The risk of crime significantly increased after dark. In addition, during the period of the interviews, political tensions were high.

Remedies:

We provided participatory training for the interviewers before they began field work. The pretest was critical to ensure not only mastery of content but also ability to effectively function in an inner-city environment. Strict guidelines regarding transport and working hours ensured the completion of field work by nightfall. All staff participating in the inventory returned to the Project office at the close of each day for the daily review sessions, as well as to ensure their personal well-being. Daily review sessions provided an opportunity for early identification of problems and feasible solutions.

Interviewing amidst Suspicion

Little, if any, precedent existed for interviewing private providers and community organizations. To our knowledge, the UPSI was the first major endeavor targeting private providers and community organizations in Lagos. Furthermore, the political and economic environment encouraged suspicion and fear of outsiders asking questions.

Remedies:

We prepared the interviewers to effectively deal with these situations, including running practice exercises aimed at easing respondent distrust. Also of importance, the standard introductory statement addressed major concerns uncovered during the pretest.

Scheduling Interviewers' Working Hours

Schedules had to take into account daily time for debriefing, quality assurance, and preparation for the next day, and transport time to and from interview sites, as well as the need to depart field sites by dark. Furthermore, rescheduling follow-up sessions with health facility providers had to be considered when making daily plans. Many health facility respondents were only available later in the afternoon after completing a day's work; others preferred midday sessions.

Remedy:

We tailored the workload to fit respondents' needs, which required some flexibility in working hours but still conformed to the safety standards established for the team. Transport time and security precautions limited the number of interviews that could realistically be undertaken each day. Interviewers usually brought meals with them, which they ate at the field site. Interview schedules and the overall inventory plan reflected these realities.

Findings of the UPSI

Aggregate Totals and Refusals

Within the 13 communities surveyed, the inventory identified 395 community-based organizations, 330 private health facilities, and 414 pharmacies/chemist shops and patent medicine vendors. Nine percent of the CBOs, 15 percent of the health facilities, and 22 percent of the pharmacies/chemist shops and PMVs refused to participate in the inventory. The most common reason given for refusals by CBOs and health facilities was time, with an occasional concern that the interviewers were "tax collectors." As noted previously, most of the PMVs were concerned about the concurrent Government of Nigeria licensure checks, and some refused to share information or answer questions that they considered incriminating. As shown in Exhibit 11, the team completed a total of 961 interviews across all categories: 358 CBOs, 279 health facilities, and 324 pharmacies/PMVs.

Exhibit 11
UPSI Totals by Category

Instrument	No. Identified	No. Interviewed	Refusal Rate (%)
CBOs	395	358	9
Health facilities	330	279	15
Pharmacies/ chemist shops and PMVs	414	324	22
Total	1,139	961	

The data can be analyzed at three levels: aggregate, LGA, and community-specific. All inventory facilities and organizations have a map identifier code, which allows rapid location and grouping for analysis by geographic area and serves as the rudiments of a future GIS.

The findings presented here are based on data aggregated from all 13 communities included in the total inventory. We later aggregated information for six selected target communities, as well as individual community data sets.

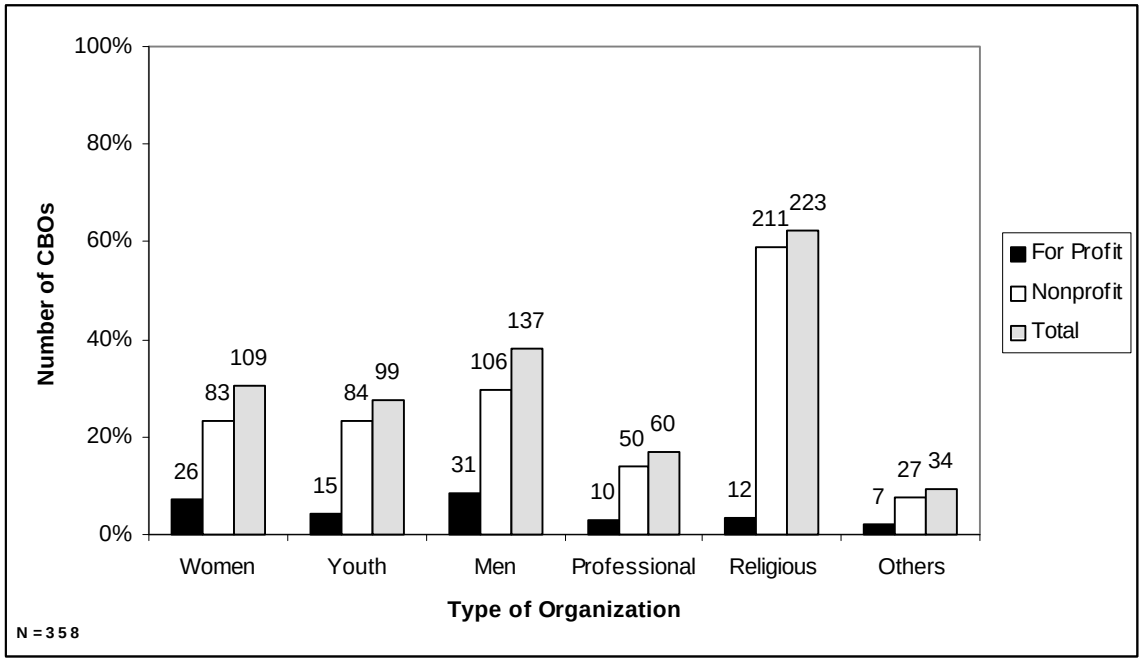
The findings are based on the actual answers provided by respondents; inevitably, these answers reflect their own perceptions and knowledge. Hence, particularly in the area of practice classification or estimation of service catchment size, there may be some variance from a standard definition or more technically precise answer. Some inconsistencies were noted during the analysis. Nonetheless, the findings were sufficiently accurate to use in program design and early implementation of the Community Partners for Health.

CBO Findings

Clear differences emerged in regard to numbers and typologies of CBOs in each of the surveyed communities. Ajegunle and Amukoko, both located in Ojo LGA, had the highest number (68 and 45). The CBO-to-population ratios revealed that Makoko had the highest ratio (1 CBO to 640 people) and Mushin Proper had the lowest (1:5,327).

The CBOs had a range of membership bases, as shown in Exhibit 12. Sixty-two percent characterized their membership in terms of religious group affiliation, and 68 percent described their membership in terms of gender (38 percent men, 30 percent women). Less than one-fifth of the CBOs (17 percent) identified their membership in terms of occupational groupings such as hairdressers, transport workers, or market women. (Because organizations could choose more than one characteristic, the percentage total is more than 100 percent.)

Exhibit 12
CBO Typology



Not surprisingly, the inventory confirmed the assumption that most CBOs are nonprofit (85 percent), but we did not anticipate that the remaining 15 percent would report for-profit status. The for-profit CBOs appeared to be drawn from the spectrum of CBO types.

Several variables related to sustainability were examined: length of existence, management type, and financial base, as summarized in Exhibit 13a, b, and c. Interestingly, more than 80 percent of the CBOs reported to be more than 5 years old. Volunteer boards governed just under half (47 percent) of the

organizations. Membership fees funded the large majority of the organizations interviewed (83 percent). Most (81 percent) noted self-enrollment to be the major pathway to membership.

The UPSI also examined membership and paid and volunteer staffing size. Nearly half had more than 50 members, while very few (9 percent) had more than 50 volunteers serving in staffing capacities. About three-quarters had fewer than five paid staff.

The inventory explored the relationship to the community in terms of organizational membership, staff selection, management decisions, existence of a community boards of advisors or governing body, and financial or material support. The majority of the CBOs interviewed (65 percent) reported that most organizational members came from the community, but only one-third reported that their paid staff also did. Less than one-quarter (23 percent) reported the existence of a community board of advisors.

Exhibit 13a
Length of Existence of CBOs

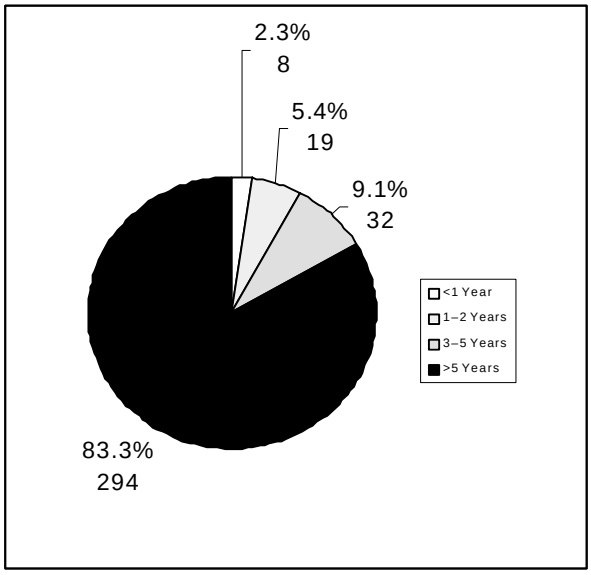


Exhibit 13b
Selected Management and Membership Characteristics of CBOs

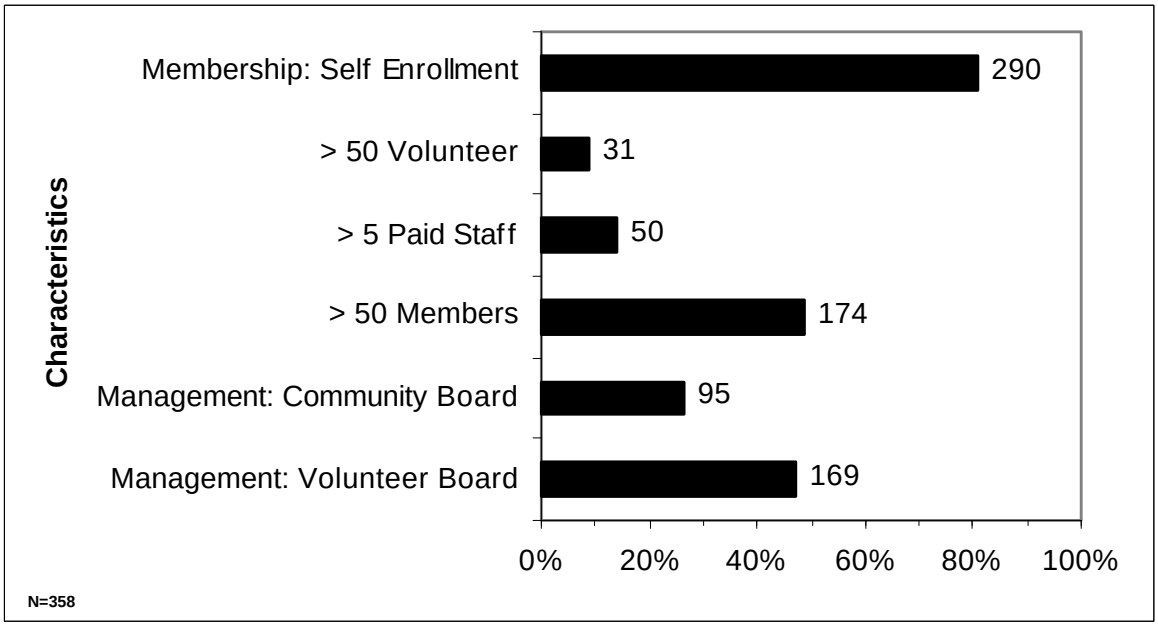
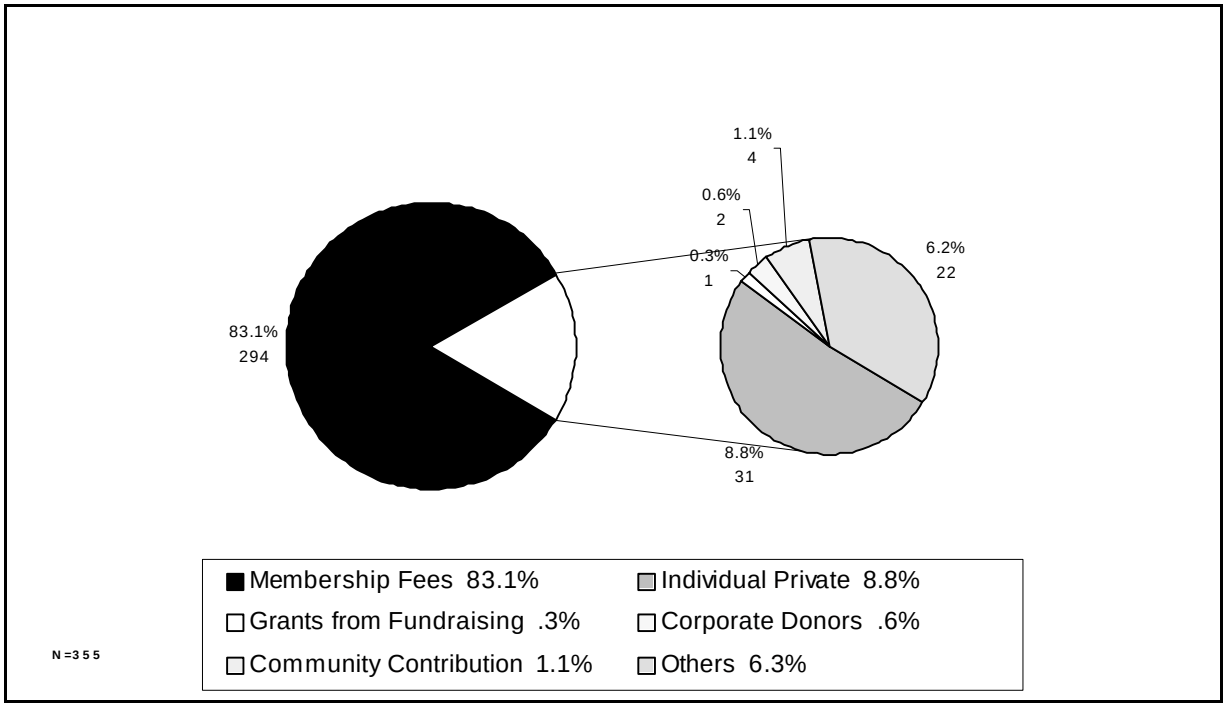
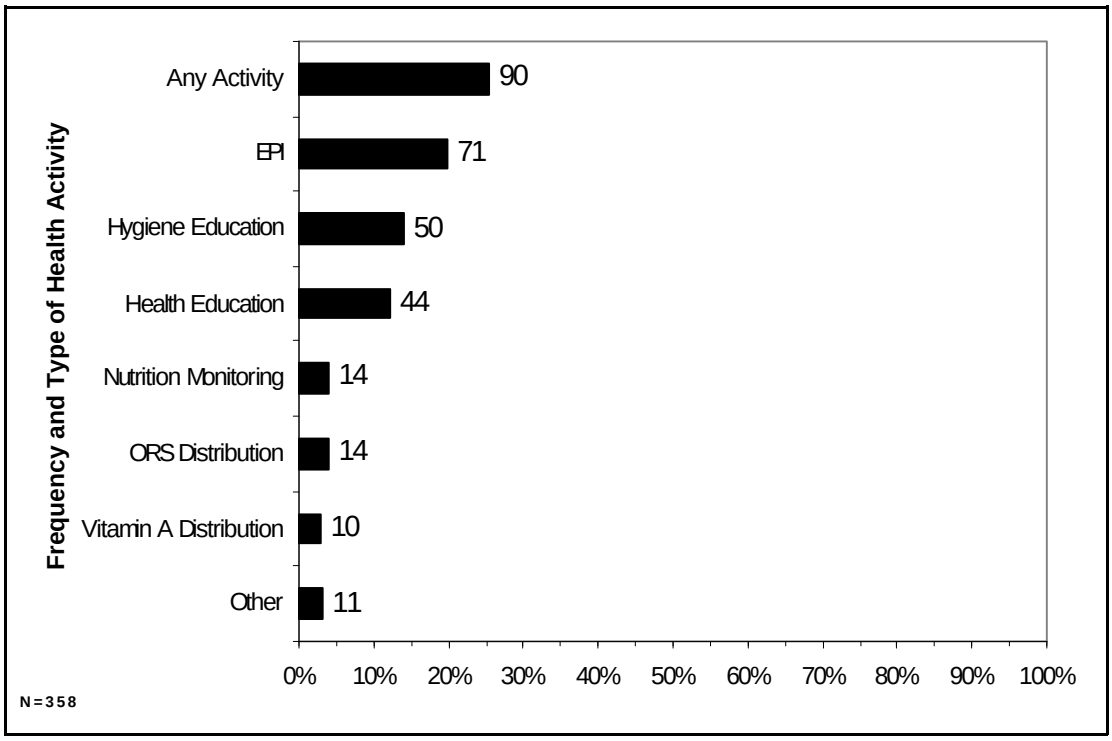


Exhibit 13c
Main Financial Support of CBOs



One of the most important subject areas addressed in the inventory related to CBO involvement in health or immunizations, as shown in Exhibit 14. Approximately 25 percent (90 in total) reported some history of health or immunizations; of these nearly 80 percent listed immunizations, followed by hygiene and health education (about 50 percent in each of these areas). Thirty percent of all the CBOs specifically reported participation in some form of EPI activities during the last five years, the majority in promotion (63 percent) and/or campaigns (42 percent).

Exhibit 14
CBO Prior Involvement in Health Activities



Health Facilities

A total of 330 allopathic and traditional health facilities were identified, of which 279 completed interviews. Of those, 255 completed the full-length questionnaire. Again, the variation in numbers by community are remarkable, with the majority of health facilities located in the communities of Amukoko, Olodi, and Ajegunle in Ojo LGA. The ratio between the number of health facilities and the population they service varies greatly among communities. Alapere has the highest facility-to-population service ratios for both health facilities (1:1,850) and pharmacies/chemist shops and PMVs (1:2,960). Makoko has the lowest ratio for health facilities (1:19,200) and Ward E for pharmacies/chemist shops and PMVs (1:10,800).

Two questions on the UPSI sought information to help identify the type of practice and facility. The responding facilities were predominantly classified as polyclinics/small hospitals or outpatient/primary health care clinics (67 percent). Only 14 percent were traditional medicine facilities. Not a single facility identified itself as primarily a family-planning clinic. Most

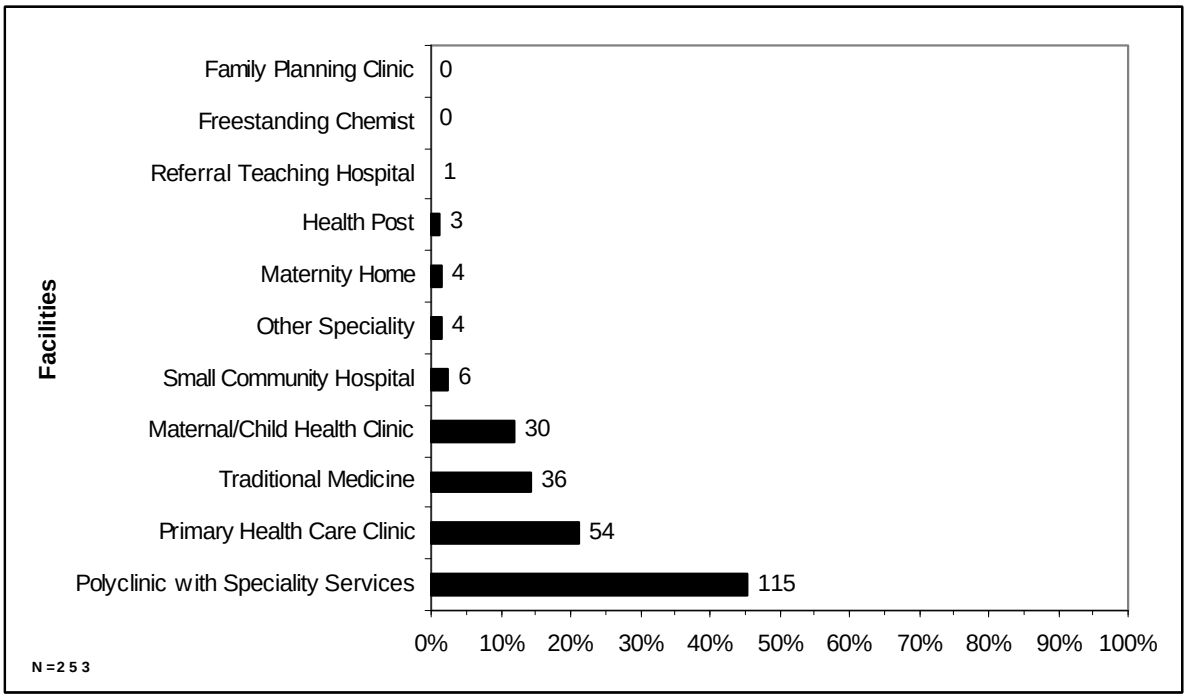
Exhibit 15
Variance in Ratios between Number of Health Facilities and Population

Highest Ratio
1 health facility per 1,850 people

Lowest Ratio
1 health facility per 19,200 people

(78 percent) are relatively small (a single practitioner or a group of less than five), and 98 percent operate as for-profit practices. Relatively few NGO or PVO clinics (religious or secular) operate in these urban communities, in sharp contrast with rural areas. Most facilities (81 percent) have provided services in their communities for more than three years, and nearly all (98 percent) are owned by the chief medical practitioner or a partnership of local providers.

Exhibit 16
Classification of Private Sector Health Facility Practices



Most health facilities interviewed are registered with some level of the government: 37 percent with the federal government, 64 percent with the state government, and 13 percent with an LGA. (The aggregate is greater than 100 percent because the question sought total registration at multiple levels.) Interviewers verified 81 percent by observing a certificate of those reporting registration.

The average number of staff in the facilities interviewed was 15, including part-time staff and volunteers. The number of full-time physicians ranged from none to eight per facility, with an average of two. Part-time staff were common (66 percent reported use of part-time physicians). The most common profile that emerged was of a small practice with two full-time physicians, one part-time physician, one specialist-consultant, six nurses, four nurse-midwives, and one traditional birth attendant. The practices function relatively autonomously, with few secondary arrangements or shared rotation of call schedules. The one exception relates to referral arrangements: 28 percent reported some type of formal referral system agreement, with more than half of those answering the question reported that they assist with transport as part of the referral. Of particular interest, 85 percent reported that the prime source of care to which they referred patients was a government facility. This finding confirms an important link between private and public health services.

More than 90 percent of the facilities depend on fees for services as their financial base. About 51 percent use a fixed fee, and 46 percent a sliding fee; the rest barter, accept in-kind payment, provide services as "charity," or work out some other agreement on a case-by-case basis. When specifically questioned about their practice of dealing with clients who cannot afford to pay for services, most indicated that they nonetheless provide treatment because, as one person said, "You cannot allow somebody who is critically ill to go without giving treatment, even if he or she could not pay... That may be part of charity." A sample of the ways facilities deal with clients who cannot pay is shown in Exhibit 18.

Exhibit 17
Average Staffing Pattern at Private Health Facility

2 Full-time physicians
1 Part-time physician
1 Specialist consultant physician
6 Nurses
4 Nurse midwives
1 Traditional birth attendant

15 Total

Not surprisingly, very few of the facilities had written personnel or administrative policies and procedures such as job descriptions with requisite qualifications and task delineation or charts with supervisory structure or reporting lines. Management capacity and infrastructure are minimally developed, although a number of those interviewed expressed interest in the management questions and reported that the interview process itself had prompted their recognition and "started them thinking" about the importance of such issues.

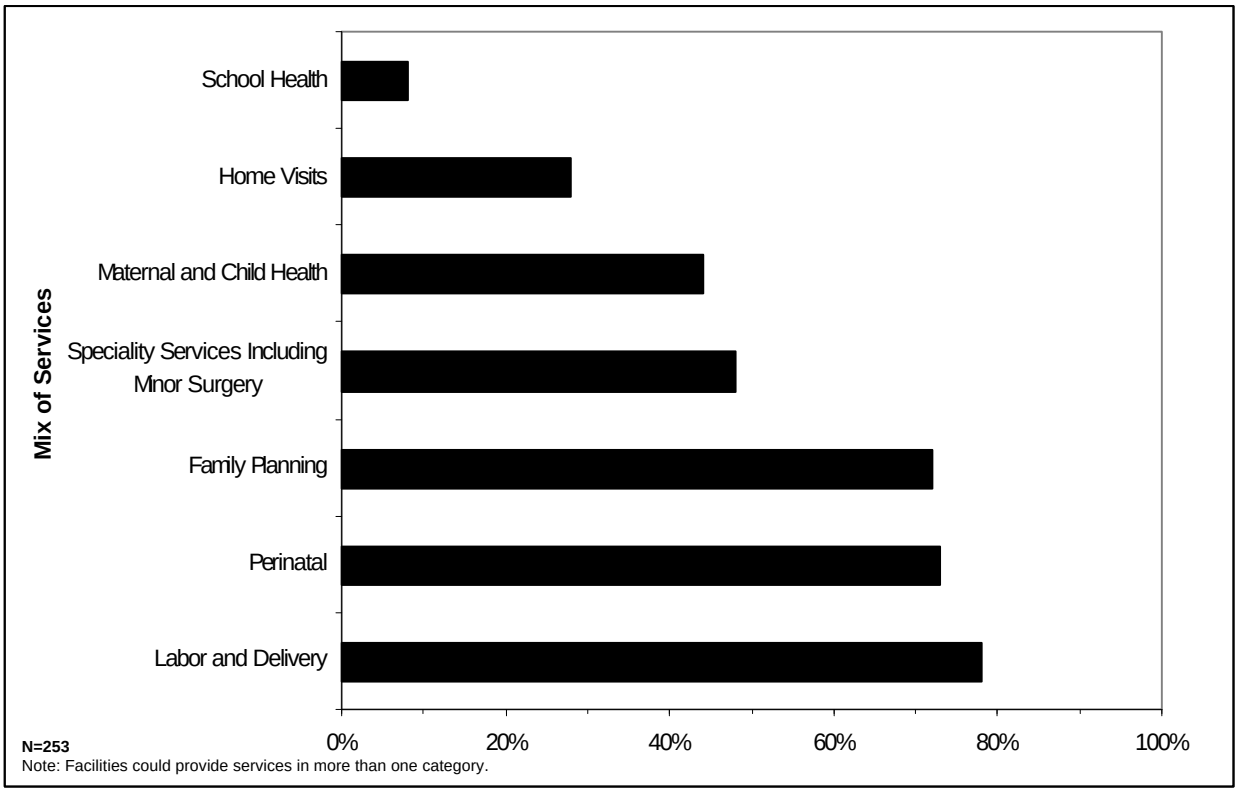
Exhibit 18
Private Health Facility Alternatives for Clients Who Cannot Afford Payment

- Treat clients for free
- Charge them the minimal amount that they can afford
- Treat them, and ask them to return at a later date with payment
- Treat them, but refuse to see them again unless they can pay
- Take whatever payment they can give
- Provide credit to them, but do not encourage as a routine
- Refer them to a general (public) hospital

It was very difficult to obtain and verify accurate information about patient load or client profiles, given the time limitation and configuration of the questionnaire. Most respondents did not have record systems that allowed them to rapidly assimilate such data, despite the fact that more than 80 percent maintained patient registers of some sort. Because the main purpose of the inventory was broad identification of private sector services and delineation of topic areas requiring further examination, interviewers noted such "problem areas" in their diaries, but did not explore them at the time of the interview. Thus, interviewer diaries noted that the registers were not regularly maintained and were largely only rudimentary listings of names and chief complaints, rarely including information about gender and age. Furthermore, information about client profiles and catchment populations provided by most respondents was only an estimate.

Most practices provide a mix of outpatient services, as shown in Exhibit 19, in addition to primary health care for all ages: maternal and child health (44 percent), prenatal/perinatal care (73 percent), labor and delivery (78 percent), and family planning (72 percent). Almost half (43 percent) perform minor surgery (with local anesthesia only) and other special services. Very few facilities provide school health services (8 percent), but home visits are not uncommon (performed by 28 percent).

Exhibit 19
Range of Private Health Facility Services Provided



Only a few of the facilities described any outreach activities in their current practice, although outside of their structured interviews, respondents expressed interest in more effectively reaching community members and frustration in not knowing how to develop better relationships with neighborhoods near their practice.

Most practices (79 percent) provide services seven days a week, and 81 percent said they provided 24-hour coverage.

Over 65 percent of the facilities interviewed provide some type of childhood immunization, although not all facilities provide all antigens. While most (76 percent) obtain vaccines at pharmacies, 17 percent get them from the Government of Nigeria, and another 11 percent from other "private organizations," with multiple sources possible. Of facilities providing immunizations, 85 percent reported they had a refrigerator for cold chain maintenance. Although the questionnaire called for interviewer observation of the reported cold chain appliance, as well as observation of whether or not it functioned and had a system to monitor temperature, time constraints prevented most interviewers from consistently verifying this information. Nonetheless, 80 percent of the responding facilities report that they provide measles immunization, and 85 percent of these reportedly have a freezer to maintain the cold chain required for the measles vaccine.

Exhibit 20
Private Health Facility Vaccine Sources

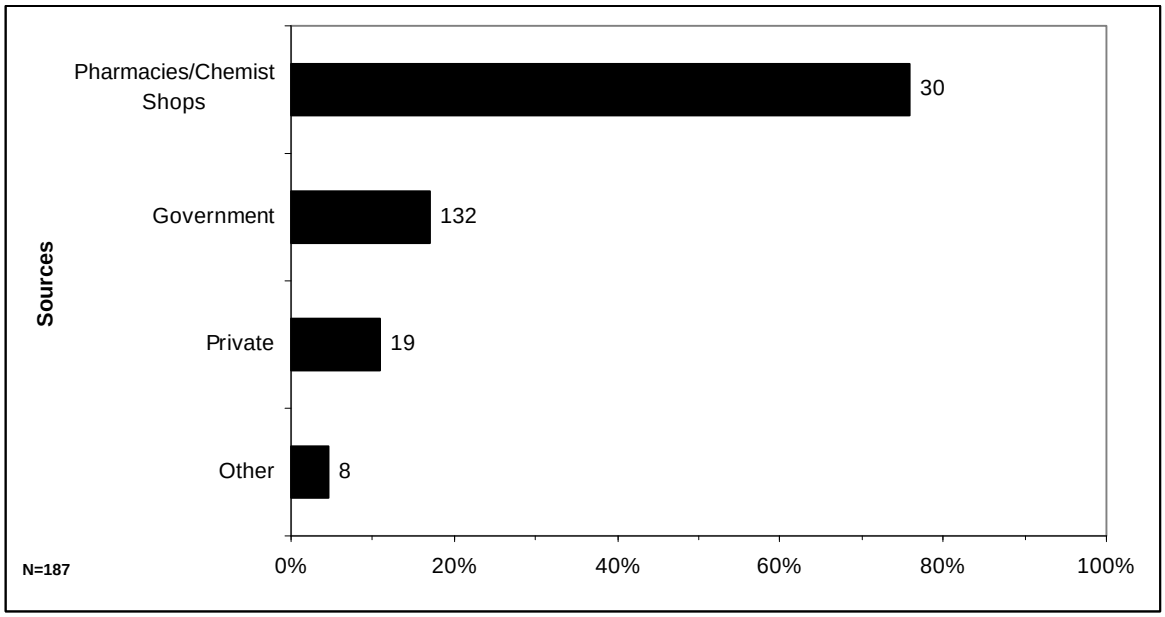


Exhibit 21 summarizes what was learned about the 65 percent of health facilities that provide some type of childhood immunization services. Only 62 percent of the facilities have a specific immunization schedule in terms of antigens and age given.

Most offered immunizations only certain days and hours. Fewer than 5 percent of those providing immunizations perform any outreach immunization services. Sixty percent of those providing immunizations report an average of 12 or fewer children vaccinated during a routine session. However, as with general patient records, providers did not maintain easily accessible immunization session records, so it is difficult to verify this average number.

Most of those interviewed (64%) claimed to maintain some sort of immunization register or a logbook to keep track of vaccinations given, but the information was often limited to name and antigen given. As discussed above, time constraints prevented the interviewers from performing the recommended direct observation of reported systems.

Exhibit 21
Private Sector Health Facility Immunization Profile

65%	**Provide some childhood immunization** services. Of them—
85%	Maintain a refrigerator on the premises for vaccine storage
80%	Vaccinate against measles
76%	Obtain their vaccine from a local pharmacy
70%	Provide vaccination cards to patients
64%	Maintain a logbook of vaccinations given
62%	Follow an immunization schedule (recommended age and antigens)
60%	Report the average number of children attending a vaccination session to be a dozen or less
17%	Send immunization reports to their local government area
7%	Send immunization reports to Ministry of Health
<5%	Provide outreach services for immunizations

More than three-quarters of the health facilities reported ongoing or recent (within the last two years) EPI in-service training for their staff. About one-third (33 percent) provide annual EPI in-service training for their staff, while another 10 percent provide biannual training. Much of this in-service training is provided informally for other staff by a physician working in the facility.

Seventy percent of the facilities provide vaccination cards, with interviewer observation of the card in 86 percent of the instances. Only 17 percent said that they sent immunization reports to the LGA, and 7 percent said they sent reports directly to the federal Ministry of Health. Clearly, the vast majority of private facility immunization services are not included in national statistics—a major obstacle to effective planning of vaccine supply forecasting.

Finally, a large majority (84 percent) reported charging a specific fee for immunization services, which most facilities said covered the cost of the vaccine and a service charge (Exhibit 22). Of those reporting, the most common fee for immunizations (for 39 percent of respondents) was approximately 50 Naira, or about U.S.$0.60. In contrast, UNICEF guidelines for vaccine ordering cite an average cost of U.S.$0.35 per dose per session (UNICEF 1995).

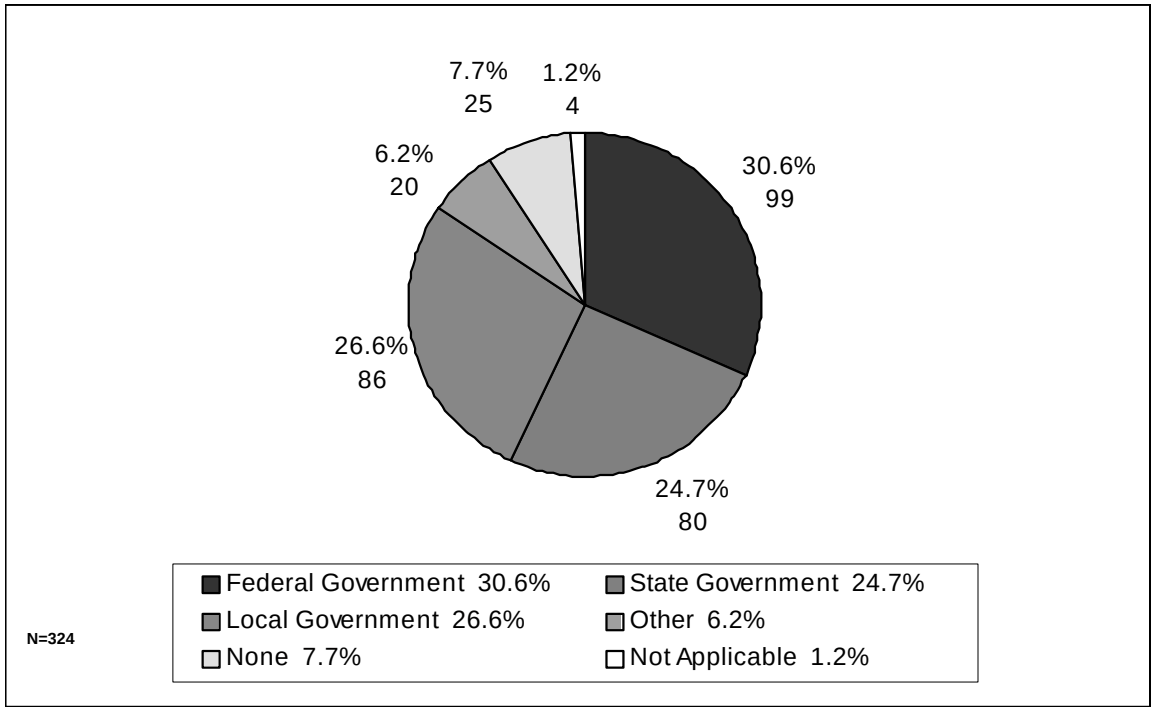
Exhibit 22
Private Health Facility Fees for Immunization Services

- 84% charge specific fee for immunization services
- 50 Naira (U.S.$0.60) is average fee most commonly reported

Pharmacies/Chemist Shops and PMVs

Surprising variation existed between communities in the quantity and types of pharmaceutical sellers. For example, 22 percent of all those interviewed were located in Ajegunle and only 6 percent in Alapere. Overall, approximately the same number of pharmacies/chemist shops were interviewed as were PMVs (47 percent versus 45 percent), although the refusal rate was higher among the PMVs. Another 8 percent represented an array of practice situations that incorporated pharmacies. Almost all of those interviewed (>99 percent) operated for-profit services, 95 percent of which were owned by individuals or small partnerships of providers. Nearly half (46 percent) had been in business more than five years. Exhibit 23 summarizes key findings regarding the pharmacy/chemist shop and PMV registration status.

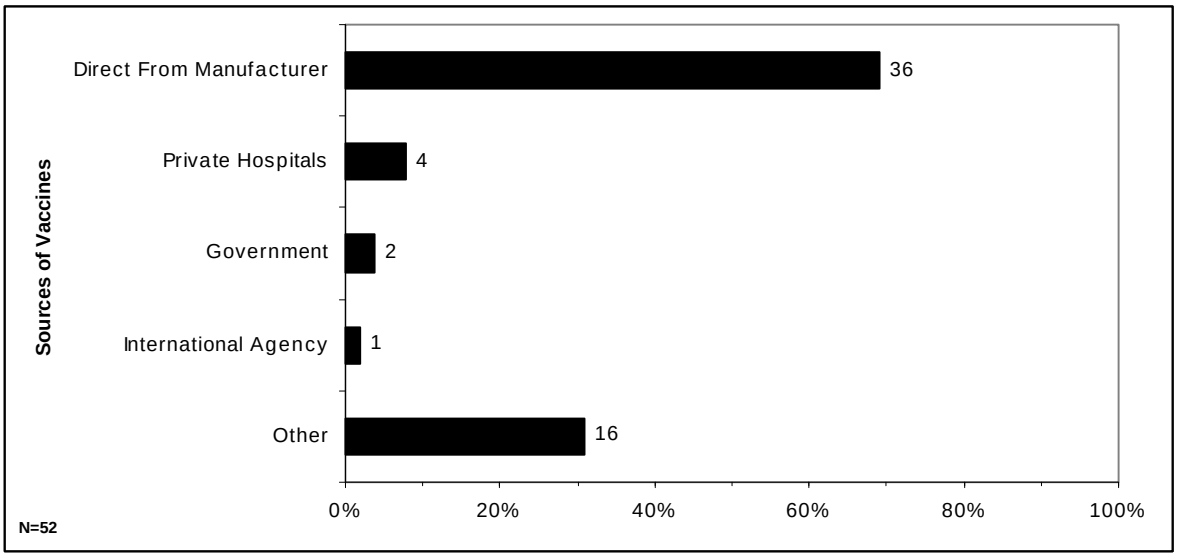
Exhibit 23
Pharmacy/Chemist Shop and PMV Registration Status



Despite the ongoing controversy about registration and licensure, more than one-third (40 percent) reported current registration with their LGA. Interviewers verified registration in 81 percent of these instances by observing registration certificates. Of the 40 percent registered, pharmacy/chemist shops were more likely to be registered with at least one body (96 percent) than were PMVs (88 percent). Furthermore, pharmacies and chemist shops were much more likely to register with the federal government than were PMVs, while PMVs were more likely to be registered with the LGA.

Less than one-fifth of those interviewed said they stocked vaccines (~16%), but surprisingly, four were PMVs. Sources for the vaccines, as illustrated in Exhibit 24, included local drug company representatives (by far the most common at 61 percent), private hospitals (7 percent), and government (3 percent). Multiple source listings were possible. Although few in number, about 5 percent stated that they administered immunizations at their facility, most commonly in conjunction with a free-standing clinic associated with the pharmacy.

Exhibit 24
Source of Private Sector Pharmacy/Chemist Shop and PMV Vaccine



Nearly all of those stocking vaccines reported on-site cold chain equipment. Furthermore, those with refrigerators also had electricity from the National Electric Power Authority (NEPA). Unfortunately, because of the spasmodic supply of current and common load shedding, only generators can guarantee a reliable source of electricity for refrigeration, but the UPSI did not examine generator use.

Few of the pharmacies and PMVs had any record system or could delineate profiles of their client population. Almost half reported fixed fees for services (48 percent), while another 37 percent had a sliding fee scale. How they dealt with clients who could not afford to pay varied greatly. Many reported supplying the needed medication, although some then discouraged poor clients from returning unless they could pay.

Validation Study

Following completion of the inventory, BASICS undertook a simple validation study to broadly estimate the detection power of the inventory, particularly of the "shoe leather" visual survey methodology. We did not expect 100 percent detection, but hoped to obtain a general estimate of underdetection, particularly for specific facility types such as traditional healer clinics. The two field supervisors and the inventory principal consultant conducted the validation study, each assigned to sites that had previously not been under their supervision. Because of time and staff constraints, the validation study focused on the identification of health facilities and pharmacies and did not attempt to re-create the key informant interviews so critical for CBO detection. Nor did the study attempt to examine classification accuracy, but rather broadly identified private health facilities according to the following categories: pharmacy/chemist shop and PMV; allopathic facility, including clinic/hospital and maternal child health/maternity home; or traditional healer facility. Each supervisor was assigned two major and two minor streets. They used the initial listings and re-created the visual surveys, starting at one end of their designated streets and proceeding to the other end. They documented on a standardized form all facilities

they identified. The validation study was not intended to be a statistically significant sample but a rough trend estimation of the completeness of the survey, particularly in regard to certain provider types.

Comparisons were then made of the overall number and type of facilities identified per selected street during the actual inventory and the re-creation. Addresses clarified identification in the cases of incongruence with originally reported names. In general, the allopathic health facilities were well identified; however, traditional healers were consistently underidentified in the full inventory as compared to the validation study. Pharmacies and chemist shops appeared to be equally detected, although some incongruence in names may have reflected actual differences in detection or simply varying nomenclature of the same facility. Many did not have posted names, and since the validation study was largely limited to a visual check, addresses or locations were used as identifying variables.

It is most likely that interviewer bias caused at least some of the underdetection of traditional healers. Most of the interviewers were highly educated, some had medical backgrounds, and all knew that a USAID-funded child health organization supported the inventory. Furthermore, because many traditional healers in Nigeria depend on colorful, eye-catching signboards as one of their main forms of advertisement, the visual survey should have been a good means to identify them. Future inventories should take into account such potential interviewer bias during training.

Utility of the UPSI

Immediate Utility: Program Design

Criteria for Target Community Selection

The following types of information from the UPSI helped rank and ultimately select 6 Project target communities from among the 13 inventoried:

- Absolute numbers of CBOs and health facilities per community
- Types of CBOs and health facilities per community
- Number of CBOs or health facilities with largest potential impact (based on staff or membership size and current service population/patient load)
- Networking potential (based on range and type of potential private sector partners).

We incorporated this information, along with other data about population size and public health need, into a matrix that ranked the 13 communities. One community per LGA was ultimately selected, with the exception of Ojo, which had two. Thus, a legitimate, clear process justified the selection and preempted later concerns about favoritism or political bias.

The six communities are Ajegunle and Amukoko in Ojo LGA, Mushin Proper in Mushin LGA, Alapere in Shomolu LGA, Ward E in Lagos Island LGA, and Makoko in Mainland LGA. These six communities have a total population of nearly 1 million, approximately 183,000 of whom are under age 5. Within these communities, the inventory identified 144 health facilities and 241 CBOs.

Selection of Potential Private Sector Partners

Once we selected the six target communities, we reanalyzed their data and developed individual community data sets for more intensive examination to determine the composition of the Community Partners for Health program. Aggregate findings from the target communities established realistic selection criteria for the identification of optimal CBO and health facility partners within the communities. Major criteria are listed below; minor criteria were also determined and can be found in Annex F.

Exhibit 25
UPSI Used to Select Target Communities

- 6 target communities with total population of about 1 million
- Estimated 183,000 under age 5
- 144 private health facilities
- 241 CBOs

Major Criteria for CBO Partners

- Established or potential ability for outreach capacity
- Established or potential ability to participate in EPI promotion services
- Evidence of effective management systems and administrative infrastructure
- Minimum membership size of 50

- Priority membership types: women's, religious, and occupational (predominantly female)
- Networking potential
- Existing or potential linkage with health facilities
- Nonpolitical
- Reputation of achievement
- Interest and enthusiasm in participating in partnerships to improve child health in local community

All but the last three of the major criteria for CBO partners were obtained from the UPSI database, although additional on-site field interviews supplemented the networking and linkage data. Similarly, all of the major criteria for health facility partners were based on information directly obtained from the inventory, except for criteria relating to interest and enthusiasm.

Major Criteria for Health Facility Partners

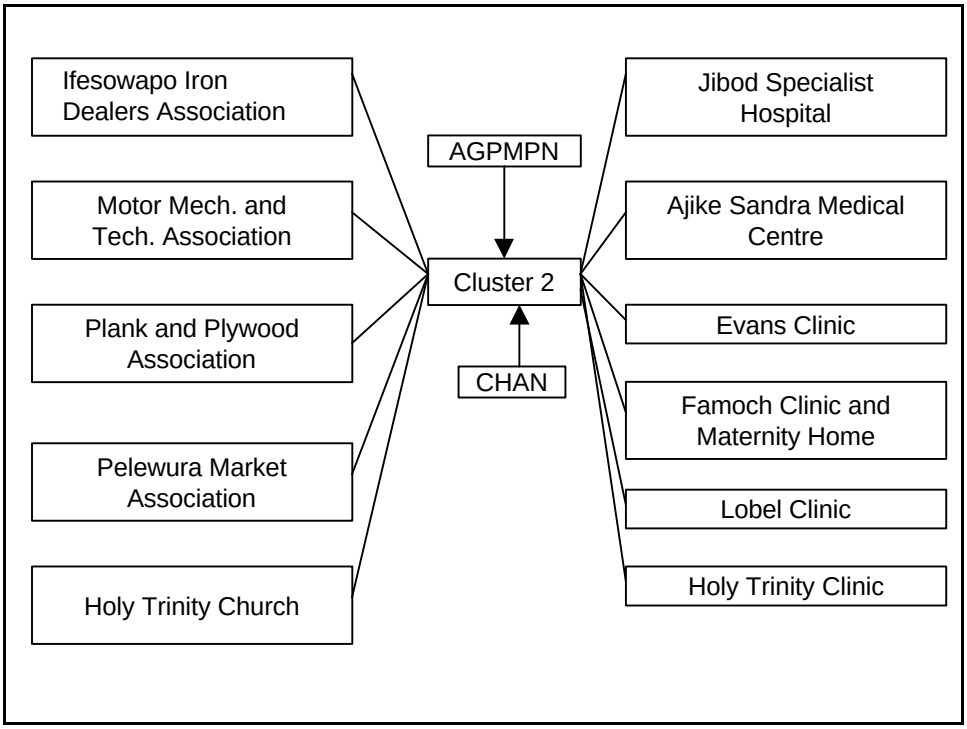
- Established network or network potential
- Existing or potential linkage with CBO or other outreach capacity
- Established or potential ability to provide EPI services
- Evidence of effective management system and administrative infrastructure
- Evidence of sustainability and resource base
- Registration with Government of Nigeria
- Established or potential cold chain equipment
- Minimum of five paid staff (including two professionally trained staff capable of administering immunizations)
- Interest and enthusiasm in participating in partnership with other organizations to improve child health in local community.

Using these criteria and associated UPSI data, we developed partnership selection matrices that rapidly identified potential CBO and HF partners, completed listings per target community, and performed schematic mapping of potential partners using the MAPID codes from the inventory and selecting for common street addresses. Thus, the UPSI directly contributed to the initial identification of potential private sector partners as Community Partners for Health. Although the UPSI also identified pharmacies/chemist shops and PMVs, it was decided that such data would be used at a later date. Because the USAID Mission and BASICS support a focus on community and household-level behavioral changes to improve health and strengthen local decision-making capacity, the delineation of potential health facilities and CBO partnerships was the first priority.

Development of Prototype Private Sector Partnership Structure

The schematic mapping revealed groupings of geographically proximal CBOs and health facilities that might function as "clusters" within each community. Initially two such target clusters were identified for each community. Schematic clusters with potential partner listings were created as illustrated in Exhibit 26. A member of the BASICS team visited the private organizations and facilities in each target cluster to perform an on-site rapid observation of the facility or organization and to collect information about the remaining selection criteria, particularly those related to interest and enthusiasm. The interview also served as an opportunity for the team to offer a personal invitation for the organization or facility to participate in a forthcoming series of meetings, or fora, to explore the concept and feasibility of community partnerships for health.

Exhibit 26
Prototype Partnership Cluster Developed from the UPSI Database



Within each community cluster, a number of potential *dyads* (cooperative partnerships of at least one health facility and surrounding CBOs) were defined, largely based on geographic proximity or common characteristics (for example, religious CBOs). Preliminary pilot dyads were thus developed using the inventory data. With the UPSI data, we designed prototypic private sector community partnerships (two clusters in each of the six communities, each containing 10 to 20 partners) and augmented program planning for first-phase operations.

Partner Profiles

In addition, data from the UPSI were used to develop individual partner profile sheets that concisely presented key facts about each partner. Annex G is a sample of an HF partner profile. The profiles allow easy assimilation of the most significant facts about each organization. They can be updated regularly to reflect organizational development or other new information.

Development of Operational Framework and Initial Strategic Intervention Plans

Information from the inventory helped in planning topics for community partnership fora regarding preliminary strategic interventions and assisted the BASICS team in developing a realistic initial operational framework. For example, the types and numbers of potential partners in a dyad or cluster influenced the choice of strategic options. Communities such as Makoko, with large numbers of CBOs but few health facilities, could capitalize on their outreach capacity and focus on interventions to strengthen home-based care of the sick child and increase the recognition of danger signs and symptoms requiring immediate referral. Conversely, in a community such as Alapere with large numbers of health facilities, partner health facilities might develop outreach sites for the underserved areas of their community or foster transport arrangements with partner CBOs to ensure efficient referral when needed.

Furthermore, the inventory database, although only a beginning, efficiently elucidated topics or functions that would benefit from more in-depth examination: for instance, determination of facility catchment populations, development of patient profiles, and examination of cold chain capacity. BASICS did not waste limited resources performing comprehensive assessments of large amounts of meaningless data, but it will follow up on issues deemed pertinent to the private sector intervention plans developed by its partners.

Long-Term Utility: Monitoring and Data for Local Decision Making

One of the advantages of the UPSI is its ability to function as a longer-term monitoring system to track program evolution, as well as to provide information about specific partner organizational progress. The original database can function as a baseline, with annual or biannual updates performed at minimal cost to document aggregate programmatic comparisons (for example, the number with functioning financial or personnel and administrative systems, Government of Nigeria as the source of vaccine, in-service training, or catchment populations or patient loads). Initially, some information may have to be collected through more in-depth assessments, though highlighted by the inventory, while later assessments could be implemented through the inventory.

Exhibit 27
Programmatic Utility of UPSI

- Development of criteria for target community selection
- Selection of potential private sector partners
- Development of prototype private sector partnership structures
- Creation of partner profiles
- Development of operational framework and initial strategic intervention plans
- Program monitoring
- Generation of data for local decision making and capacity building

To this end, an abridged monitoring UPSI is being developed that focuses on information related to project interventions or capacity building, in accordance with BASICS's objectives and its monitoring and evaluation plan. It will be conducted on an annual basis among BASICS's private sector partners in Lagos.

Individual institutional ID codes promote rapid monitoring of selected programmatic variables at different levels: Project-wide, individual target community or community cluster, dyad partnership, or individual partner. Group analysis of like partners, according to selected characteristics such as CBO membership typology or health facility staff size, can be rapidly performed, as can partnership comparisons.

Plans for linking the UPSI with a more sophisticated GIS using ATLAS software have already been initiated. The proposed linkage would incorporate national enumeration area codes, significantly expanding the relational capability of the system. USAID/Lagos' Integrated Health Baseline Survey (IHBS) used enumeration areas for its determination of representative sampling in the Lagos Zone. Thus, linking enumeration area codes with UPSI partner catchment populations will allow the tracking of changes in target community health status, facility utilization patterns, or home-based care patterns. In this way, as noted earlier, the UPSI forms the foundation for a GIS.

Furthermore, because of its capacity to list and analyze data at the individual partner or community partnership level, the UPSI can generate specific local data that the partnerships can use for advocacy or community decision making. For example, the initial UPSI findings were used in the development of partner activity plans by illuminating the lack of sustainable management systems, the minimal existing outreach sites for immunizations in some communities, and the need for more effective referral relationships in others.

Limitations and Recommendations for Improvement

Methodology: Action-Oriented Utility

The Urban Private Sector Inventory is a pragmatic and powerful tool designed for use by local communities and organizations. Programmatic considerations, rather than purely scientific principles, influenced its initial implementation in Lagos. As always, the purpose and ultimate use of data dictate the selection of methodology and design of the instrument. In the case of the UPSI, local capacity building was an important objective, and ultimate use of the methodology and data collected by private sector partners necessitated the choice of simple, feasible methods and data systems over more rigorous scientifically and statistically significant ones.

Time constraints and programmatic pressure for rapid action, coupled with the desire to promote local decision-making capacity, at times resulted in choices for immediate, locally determined outputs, even if they were less technically accurate. For example, the need to rapidly design and implement the inventory meant that the eventual instrument, even though pretested, retained certain questions eventually proven to be less useful. The next rendition of the inventory (and its package for use in other settings) will have a revised, improved instrument based on the Lagos experience.

Exhibit 28
Recommendations for Future Application of UPSI

- The trade-off between technical standards and field pragmatism is a sensitive one that must be continuously examined.
- Pretesting is vital for such an inventory, especially its first implementation. Future urban inventories should include more training and practice time.

The need to develop a rapid, easy method for identifying private sector health resources culminated in the use of the visual survey method, previously untested in urban settings. The validation exercise was minimal, but it was the best that could be conducted given time and staffing constraints. Again, learning from rapid application was the deciding factor, jeopardizing some technical perfection. In this case, the pragmatic outcome of immediate identification of a potential set of private sector partners perhaps resulted in some inaccuracies in the classification of reported facilities or organizations. *This trade-off between technical standards and field pragmatism is a sensitive one that must be continuously examined.*

Because of the desire to build local capacity, interviewers were selected who might become Project resources for future surveys. Some of them had strong potential but were unskilled in technical interviewing, where the need for consistency and accuracy is important; some were unaccustomed to the conditions of interviewing in high-risk urban neighborhoods. In addition, it was decided to provide long-distance, rather than on-site, technical support. The pressure to conduct the inventory in a compressed time period and to rapidly obtain the data for use in program development limited training and preparation time. The time pressures also triggered the decision to “jump start” training prior to the final revision of the instrument, which ultimately incorporated results from the pretesting and technical comments from BASICS headquarters. The considerable revisions deemed necessary resulted in the

retraining of interviewers, and may have contributed to the inconsistencies found in their later performance. Although supervision and quality assurance systems were developed and implemented, when the data were finally cleaned and analysis completed, it became clear that skipped questions and incomplete forms resulted in varying denominators for many questions, especially in the lengthy health facility instrument. *Pretesting is vital for such an inventory, especially for its first implementation. Future urban inventories should include more training and practice time.*

Census Inventory Instrument

As explained, the instrument provided broad information, not in-depth data, with the assumption that BASICS could perform more detailed assessments after key areas of concern were identified. Nonetheless, some of the responses were so superficial that they have limited utility. In other instances, the respondents knew so little about the topic that their responses were meaningless. The pretest pinpointed certain questions that required rephrasing for clarity or to minimize ambiguity. Despite these revisions, full implementation identified additional improvements that could improve the quality of the data. For example, future iterations should define and clarify agreed-upon terms after pretesting and shorten the health facility instrument to require the same approximate time—30 minutes—to administer as the other instruments. Exhibit 29 lists additional recommendations to refine the UPSI instruments.

Exhibit 29
Recommendations for Refining the UPSI Census Inventory Instruments

CBO

- Determine at the outset how to treat CBOs that run health facilities.
- Differentiate organizational target populations from their membership when appropriate.
- Include a means to identify and link individual CBOs with their umbrella or apex organizations.

Health Facility

- Clarify questions regarding facility and practice type.
- Omit many of the questions.
- Add a straightforward (yes/no) question regarding the administration of childhood and adult vaccinations.

Pharmacy/Chemist Shop and PMV

- Define the differences between pharmacy, chemist shop, and PMV.
- Omit many of the facility questions, except for those relating to electricity.
- Omit most of the questions in the staffing and client profile sections since they are of minimal utility due to the similarity in answers (staffing) or the limited knowledge of the respondents (client profiles).

Field Lessons

Most field lessons have been described in the section entitled Field Challenges and Pragmatic Remedies. Perhaps the most critical recommendations for future application in urban private sector environments include the following:

- Devote more time to intensive interviewer training.
- Perform thorough pretesting of inventory questionnaires and methods.
- Standardize a simple, clear introductory statement.
- Recognize the need and utility of a mapping exercise (rapid street assessment) to obtain current data, with the use of local maps as a starting point.
- Schedule an inventory of this nature during the dry season if possible.
- Allow for adequate transport time and make advance arrangements for transport.
- Maintain flexible interview hours tailored to the respondents' schedules.
- Identify umbrella organizations and their linkages prior to the start of the inventory to facilitate access to their members and save time.
- Plan for the security and safety of interviewers.
- Conduct visual surveys to identify private sector providers.
- Include community-based organizations as potential private sector health partners.
- Provide sufficient time for the rapid street assessment to identify all streets in target areas prior to the administration of the questionnaire, thus facilitating interaction and mobilization of the communities prior to the actual interviewing and saving time later.
- Maintain a high supervisor-to-interviewer ratio to provide sufficient quality control.

Conclusions for Future Application of the UPSI

Initiating Private Sector Program Development

The UPSI can play a pivotal role in identifying the composition, size, location, and general functional capacity of the urban private health sector. This information is vital for selecting private sector partners, targeting communities, and developing operational frameworks for program implementation.

Exhibit 30
Overall Utility of UPSI

- Initiating private sector program development
- Program monitoring
- Public sector policy and program development
- Municipal health system planning

Program Monitoring

The information collected can become a baseline for monitoring change and progress in private health sector capacity and effectiveness, either independently or as part of the overall municipal health delivery system. The information can also monitor specific programmatic impact.

Use by Public Sector

Information from a refined urban inventory can provide the public sector with much-needed data for planning delivery systems, identifying gaps in service, and elucidating potential collaborative networks between public and private providers to reach hitherto unserved or underserved populations. The data are critical if the public sector is to effectively harness the capacity of the private sector and assure maximal services for all people, especially in times of decreasing public sector resources.

Exhibit 31
The Beneficiaries of Improved Urban Private Sector Health Services

The data from such an inventory can help to illuminate the interface between public and private sector services and augment the development of appropriate strategic planning and policies. For example, the findings in Lagos showed that most private providers use public facilities as their main source of care for referred patients and that private providers are giving increasing numbers of vaccinations but do not have easy access to government vaccine supplies. The UPSI can also aid in the understanding of private sector strengths, capabilities, and weaknesses, thus helping to concentrate public sector resources where they will be most effective and needed. Finally, information from the urban inventory can promote the creation of public policy conducive to the growth and development of the private health sector.

Additional Urban Applications

The UPSI becomes an even more powerful instrument when linked with a geographic information system and community health data from local surveys or assessments. If sources of additional information such as public health facilities can be included, the database can compare public and private sector inputs and effectiveness. The information from such an inventory is useful for strategic and programmatic municipal health system planning.

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